

Claims

I claim:

1. An automotive headlamp assembly comprising:
 - a. at least one reflector;
 - b. at least one light source positioned within the at least one reflector; and
 - c. at least one sign light shield positioned and located in front of the at least one light source, wherein the sign light shield is moveable between a first position, wherein the sign light shield reflects light through the at least one lens's upper portion, and a second position, wherein the sign light shield reflects an insignificant amount of light through the lens.
2. The automotive headlamp assembly of claim 1 wherein the second position places the sign light shield in a location where it does not reflect any light through the lens.
3. The automotive headlamp assembly of claim 1 further comprising at least one lens positioned and located in front of the at least one light source and the at least one reflector.
4. The automotive headlamp assembly of claim 1, wherein the at least one sign light shield is operably connected to a solenoid that moves the sign light shield between the first position and the second position.
5. The automotive headlamp assembly of claim 4, further comprising an operating mechanism operably connected to the solenoid that causes the solenoid to move the sign light shield between the first position and second position.
6. The automotive headlamp assembly of claim 1, wherein the at least one sign light shield is operably connected to a stepper motor that moves the sign light shield between the first position and the second position.

7. The automotive headlamp assembly of claim 6, further comprising an operating mechanism operably connected to the stepper motor that causes the stepper motor to move the sign light shield between the first position and second position.

8. The automotive headlamp assembly of claim 3, further comprising at least one cutoff shield located and positioned in between the at least one light source and the at least one lens.

9. The automatic headlamp assembly of claim 8, wherein the at least one sign light shield is positioned and located between the at least one cutoff shield and the at least one lens.

10. The automotive headlamp assembly of claim 8, wherein the at least one sign light shield is mounted to the at least one cutoff shield by a hinge that allows the sign light shield to move between the first position and the second position.

11. The automotive headlamp assembly of claim 8, further comprising a rotatable shaft mounted to the cutoff shield, wherein the rotatable shaft can move the cutoff shield between a blocking position to create a low beam light pattern and a pass-through position to create a high beam light pattern.

12. The automotive headlamp assembly of claim 1, wherein the at least one sign light shield is positioned at an angle from a horizontal axis of between approximately 0-15 degrees.

13. The automotive headlamp assembly of claim 1, wherein the at least one sign light shield is positioned at an angle from a horizontal axis of between approximately 5-7 degrees.

14. The automotive headlamp assembly of claim 1, wherein the at least one sign light shield comprises die cast aluminum with an aluminum coating.

15. An automotive headlamp assembly comprising:

- a. at least one light source positioned within at least one reflector;
- b. at least one lens positioned and located in front of the at least one light source

and the at least one reflector;

c. a first cutoff shield located between the at least one lens and the at least one light source;

d. at least one sign light shield mounted to the first cutoff shield in a position and location that allows the sign light shield to reflect light through the at least one lens's upper portion when the first cutoff shield is in a blocking position; and

e. a second cutoff shield located between the at least one lens and the at least one light source.

16. The automotive headlamp assembly of claim 15, wherein the automotive headlamp assembly has a first setting, wherein the first cutoff shield is moved into a blocking position so that the sign light shield can reflect light emitted from the light source while the second cutoff shield occupies a pass-through position, a second setting, wherein the second cutoff shield is moved into a blocking position while the first cutoff shield occupies a pass-through position, and a third setting, wherein the first cutoff shield and second cutoff shield can be moved into a pass-through position.

17. The automotive headlamp assembly claim 16, further comprising a rotatable shaft mounted to both the first cutoff shield and the second cutoff shield, wherein the rotatable shaft can rotate the first cutoff shield and the second cutoff shield in between the automotive headlamp assembly's first, second and third settings.

18. The automotive headlamp assembly of claim 17, further comprising an actuator operably connected to the rotatable shaft that causes the rotatable shaft to rotate.

19. The automotive headlamp assembly of claim 18, wherein the actuator comprises a stepper motor.

20. The automotive headlamp assembly of claim 18, wherein the actuator comprises a solenoid.

21. The automotive headlamp assembly of claim 15, wherein the at least one sign light shield is mounted to the first cutoff shield at an angle from a horizontal axis of approximately 0-15 degrees.

22. The automotive headlamp assembly of claim 15, wherein the at least one sign light shield is mounted to the first cutoff shield at an angle from a horizontal axis of approximately 5-7 degrees.

23. The automotive headlamp assembly of claim 18, further comprising at least one operating mechanism operably connected to the actuator that causes the actuator to rotate the rotatable shaft and the first and second cutoff shields between the automotive front lamp assembly's first, second and third settings.

24. A method for providing greater illumination from a headlamp assembly in its low beam setting while preventing glare, comprising the steps of:

a. providing a headlamp assembly having

- (i) at least one light source positioned within at least one reflector,
- (ii) at least one lens positioned and located in front of the at least one light source and at least one reflector,
- (iii) at least one cutoff shield positioned in between the at least one light source and at least one lens, and
- (iv) at least one sign light shield;

b. moving the at least one sign light shield into a first position where the sign light reflects light emitted from the light source through the at least one lens's upper

position; and

- c. when glare occurs, moving the at least one sign light shield into a second position wherein the sign light shield reflects an insignificant amount of light emitted from the at least one light source.

25. The method of claim 24, wherein the at least one sign light shield is moved to a second position wherein the sign light shield does not reflect any light emitted from the at least one light source.

26. A headlamp assembly comprising:

- a. at least one light source positioned within a reflector;
- b. at least one lens positioned and located in front of the at least one light source and the at least one reflector;
- c. at least one cutoff shield positioned and located in between the at least one lens and the at least one light source;
- d. at least one sign light shield positioned and located in between the cutoff shield and the lens; and
- e. a means for moving the at least one sign light shield in between a first position, wherein the sign light shield reflects light emitted from the at least one light source through the at least one lens's upper portion, and a second position, wherein the sign light shield does not reflect any light through the at least one lens.